

WE CLAIM:

1. A microactivation system comprising:

5 (a) a microactivation device for microactivation of a skin surface of an individual, comprising:

an actuator device comprising a central shaft having a proximal end and a distal end conjoined with a handle device; said central shaft having a central opening therein extending from said proximal end to said distal end;

10 a probe capable of being disposed centrally and releasably within said central opening of said actuator device; said probe comprising a cylindrical rod having a distal end and terminating in a surface at a cross-sectional proximal end thereof; said surface having a small cross-sectional diameter and having at least one needle protruding therefrom; and

15

(b) A skin benefit agent.

2. The system of claim 1, wherein said actuator device further comprises:

20 a knurled disc positioned co-axially with said shaft, said knurled disc having a threaded opening centrally disposed therein; and

a threaded cylindrical driver rod in screw cooperation with said knurled disc; and

wherein said system further comprises a collet seated within said central opening and releasably fixed to said cylindrical driver rod.

3. The system of claim 1, wherein said surface of said probe includes a plurality of needles extending therefrom; and wherein said surface is selected from a group consisting of adhesive patch, roller device, and combinations thereof.
- 5
4. The system of claim 1, wherein said needles have a cross-sectional geometric shape that includes a triangle, trapezoid, or a combination thereof.
- 10
5. The system of claim 1, wherein said needles have a geometry of a frustacone.
6. The system of claim 1, wherein said skin benefit agent is selected from the group consisting of retinoids, essential fatty acids, PPAR activators, phytoestrogens, acidic skin benefit agents, skin lightening agents, sebum control agents, astringents, and combinations thereof.
- 15
7. The system of claim 1, wherein said at least one needle protrudes about 250 micro-m beyond said surface of said probe.
- 20
8. A method for microactivation of epidermal cells of a skin surface of an individual, comprising providing the microactivation system of claim 1; wherein upon being applied to said skin surface with said surface, said needles microactivate said epidermal tissue.
- 25

9. The method of claim 8, wherein said skin benefit agent is applied to the skin about 1 minute to about 24 hours preceding or following said application of said needles.
- 5
10. The method of claim 8, wherein after said microactivation is complete, said probe is released from said actuator device.
11. The method of claim 8, wherein said skin benefit agent is selected from
- 10 the group consisting of retinoids, essential fatty acids, PPAR actives, phytoestrogens, acidic skin benefit agents, skin lightening agents, sebum control agents, wound healing agents, astringents, and combinations thereof.
- 15 12. The method of claim 8, wherein said microneedle(s) are applied relative to said skin surface at an angle of about 20 deg to about 160 deg.
13. The method of claim 8, wherein said microactivation provides a skin benefit selected from the group consisting of smoothening of the skin,
- 20 reducing the appearance of fine lines and wrinkles and sagging skin, improved texture of smooth supple skin with high elasticity, repair of photodamaged skin, firmness, glow, overall healthy skin appearance, and combinations thereof.
- 25 14. A kit including the system of claim 1.
15. The kit of claim 14, wherein use of said kit by a consumer does not require the assistance of a physician.

16. A method for assembling the microactivation device of the system of claim 3, comprising:

- (a) securing said collet to said driver rod,
- 5 (b) inserting said probe into said collet,
- (c) inserting said secured driver rod in said central opening of said central shaft of said actuator device; and
- (d) tightening said knurled disc over said actuator device, thereby securing said driver rod therein and forcing said collet to grip said probe.

10

17. The method for assembling the microactivation device according to claim 16, wherein said device is applied to the skin in such a way as to substantially avoid penetration of the skin layers below the epidermis.

15

18. The method for assembling the microactivation device according to claim 17 wherein said device enables skin penetration is to a depth of about 100 micro-m.

19. A method of skin microactivation comprising applying to the skin a device selected from the group consisting of

5 (a) a microactivation device for microactivation of a skin surface of an individual, comprising:

 an actuator device comprising a central shaft having a proximal end and a distal end conjoined with a handle device; said central shaft having a central opening therein extending from said proximal end to said distal end;
10 a probe capable of being disposed centrally and releasably within said central opening of said actuator device; said probe comprising a cylindrical rod having a distal end and terminating in a surface at a cross-sectional proximal end thereof; said surface having a small cross-sectional diameter and having at least one needle protruding therefrom;

15

 (b) a device substantially as described in any of U.S. Patent Nos. 5,879,326 and 5,591,139; and

 (c) combinations and substantial equivalents thereof.

20

20. The method according to claim 19, wherein said application of said device to said skin comprises repeated applications of said device to the skin.